

Clamping nut, mechanical with integral planetary gear



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Clamping nut

T-slot adapter



Planetary gear inside the clamping nut for clamping force multiplication

Applications:

- for clamping and locking dies on press beds and rams
- on beds of machine tools
- when the available space is limited

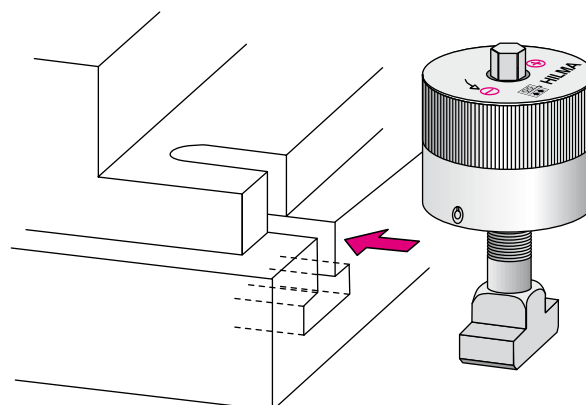
Function:

Following manual positioning of the clamping nut against the clamping edge, the integral planetary gear is brought into action by turning the hexagon nut. As a result of the gear transmission, the tightening torque is multiplied. In order to reliably ensure the required clamping force, we recommend that a torque wrench is used.

Special features:

- ◇ Suitable for retrofit
- ◇ Compact design allows for multiple clamping
- ◇ Intensification of clamping force possible in case of multiple clamping
- ◇ High clamping force with low torque
- ◇ Compensates for large clamping edge tolerances
- ◇ Easy manual clamping and unclamping

Example of application





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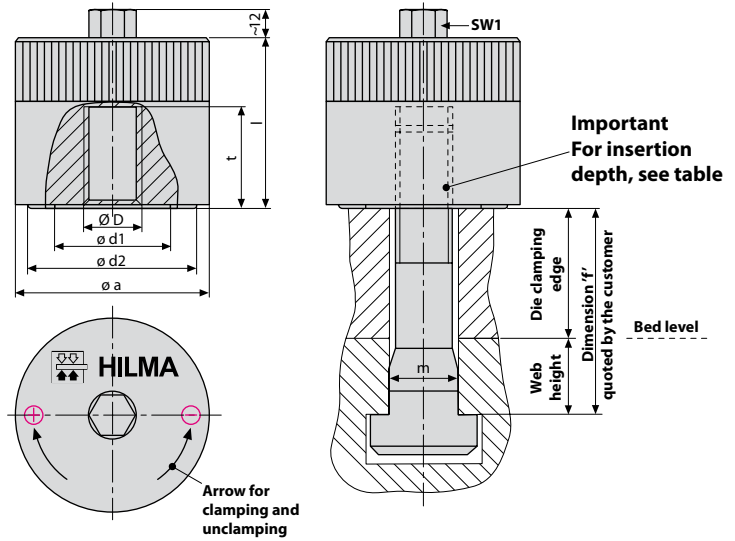
Clamping nut, mechanical with integral planetary gear

Example of ordering: **2275-820/ F80**

Clamping nut, mechanical
T-slot: 22 mm
Clamping force: 60 kN

Functional dimension
'f' = 80 (mm)
to be quoted
in the order

Functional dimension 'f':
die clamping edge
+ web height of T-slot
= dimension 'f'



Clamping nut with and without a T-slot adapter

| | T-slot DIN 650 (mm) | 18 | 22 | 28 | 36 | 42 | 42 |
|-----------------------------------------------------|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Clamping force (kN) | | 60 | 60 | 100 | 150 | 150 | 200 |
| Tightening torque (Nm) | | 25 | 30 | 45 | 70 | 75 | 120 |
| D (mm) | | M 16 | M 20 | M 24 | M 30 | M 36 | M 36 |
| a (mm) | | 62 | 62 | 73 | 83 | 83 | 120 |
| d1 (mm) | | 32 | 32 | 42 | 52 | 52 | 82 |
| d2 (mm) | | 60 | 60 | 71 | 81 | 81 | 118 |
| l (mm) | | 50 | 50 | 70 | 75 | 75 | 80 |
| t (mm) | | 24 | 24 | 35 | 40 | 40 | 45 |
| SW 1 (mm) | | 13 | 13 | 15 | 17 | 17 | 17 |
| Insertion depth min. (mm) | | 16 | 16 | 25 | 30 | 30 | 35 |
| Insertion depth max. (mm) | | 24 | 24 | 35 | 40 | 40 | 45 |
| Clamping nut with T-slot adapter Part no. | | 2275-816 | 2275-820 | 2276-824 | 2277-830 | 2277-836 | 2278-836 |
| Weight ca.(kg) | | 2,0 | 2,1 | 3,2 | 5,5 | 6,5 | 6,5 |
| Clamping nut without T-slot adapter Part no. | | 2275-716 | 2275-720 | 2276-724 | 2277-730 | 2277-736 | 2278-736 |
| Weight ca. (kg) | | 0,9 | 0,85 | 1,7 | 2,2 | 2,1 | 4,6 |

Other sizes and threads (e.g. inch) are available on request.

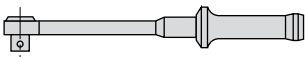
Accessories:

Torque wrench 20 - 100 Nm

Part no. 9.3792.6610

Torque wrench 40 - 200 Nm

Part no. 9.3792.6620



Clamping nut, hydro-mechanical

maximum power density in the smallest space



Clamping force indicator pin
(option)



Clamping nut

Tie rod, supplied
separately

Applications:

- for clamping and locking dies on press beds and rams
- on beds of machine tools
- when maximum clamping force is required in the smallest space
- when no power unit is available

Function:

Following manual positioning of the clamping nut against the clamping edge, the integral hydraulic cushion is pre-loaded by turning the hexagon socket. A low torque is translated into a high clamping force.

In the case of versions without clamping force control, use a torque wrench to ensure safe and defined build-up of the clamping force. In the case of versions with clamping force control, the clamping force indicator pin will project by approx. 2.5 mm when the clamping force is reached.

Special features:

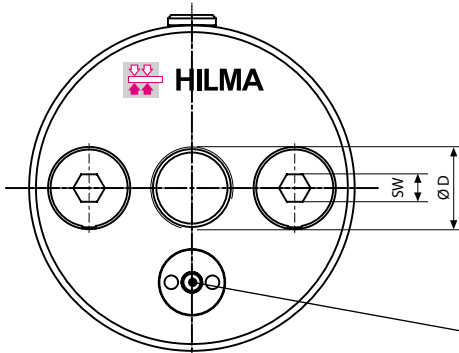
- ◆ Clamping nut with a through thread, which means high adaptability to varying heights of clamping edges and tolerances.
- ◆ Safe clamping using the clamping force indicator pin (option)
- ◆ No need for adaptation of the tie rod length
- ◆ Suitable for retrofit
- ◆ Intensification of clamping force possible in the case of multiple clamping
- ◆ High clamping force with low torque
- ◆ Easy manual clamping and unclamping



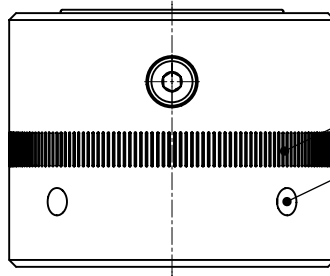
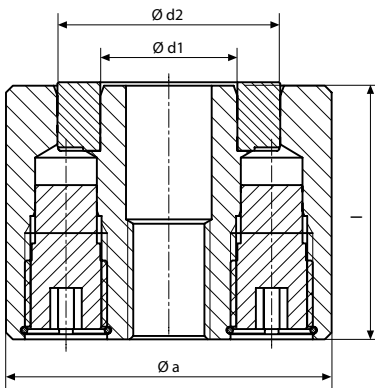
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Clamping nut, hydro-mechanical maximum power density in the smallest space



Clamping force indicator pin (option)
Upon reaching of the nominal clamping force the
indicator pin will project by 2.5 mm



Grooves
to give grip

Borehole for
preloading the
nut using a sickle
spanner

Clamping nut, supplied separately

| Clamping force (kN) | 60 | 100 | 150 |
|---------------------------------------|--------------------|--------------------|--------------------|
| Max. stroke* (mm) | 2 | 2 | 2 |
| Tightening torque (Nm) | 9 | 30 | — |
| D (mm) | M 20 | M 24 | M 30 |
| a (mm) | 70 | 95 | 112 |
| d1 (mm) | 30 | 40 | 50 |
| d2 (mm) | 50 | 65 | 80 |
| SW (mm) | 8 | 8 | 10 |
| l (mm) | 71 | 75 | 90 |
| Weight (kg) | 2,0 | 3,7 | 6,1 |
| without clamping force display | | | |
| Part no. | 8.2275.0001 | 8.2276.0001 | 8.2277.0001 |
| with clamping force display** | | | |
| Part no. | 8.2275.0002 | 8.2276.0002 | 8.2277.0002 |

* Stroke at maximum adjustment of pressure screws. Preload the nut using a sickle spanner before operating the pressure screws.

** Supplied including Allen key, no torque wrench is required.

Permissible temperature variation: ±20°C

T-slot adapter, supplied separately

| For T-slot (mm) | 22 | 28 | 36 |
|-----------------|----------------|----------------|----------------|
| Thread | M 20 | M 24 | M 30 |
| Length (mm) | 200 | 250 | 250 |
| Property class | 8.8 | 8.8 | 8.8 |
| Part no. | 5700023 | 5700024 | 5700048 |

6.2276

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Subject to technical modification